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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,774	08/30/2001	Stephen J. Kramer	4371US (00-0118)	2468

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EXAMINER

MORGAN, EILEEN P

ART UNIT PAPER NUMBER

3723

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/943,774

Applicant(s)

Kramer

Examiner

Morgan

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 10, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above, claim(s) 52-65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 30 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “sonicating” is unclear.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1,3,7-10,13,15,17-23, 25-29,31,32,36,41-43,47,49-51 are rejected under 35

U.S.C. 102(b) as being clearly anticipated by Kirchner et al.-5,913,715.

Kirchner discloses an apparatus and method for conditioning a pad by using a conditioner with abrasive elements for conditioning a pad, and a chemical, such as hydrofluoric acid (HF) capable of dissolving abrasive elements but not degrade or dissolve the polishing pad.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2,4-6,16,24,35,37-40,48 rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchner et al, alone.

Kirchner discloses an apparatus and method for conditioning a pad by using a conditioner with abrasive elements for conditioning a pad, and a chemical, such as hydrofluoric acid (HF) capable of dissolving abrasive elements but not degrade or dissolve the polishing pad. Kirchner does not disclose the degree that the abrasive elements are embedded within the supporting substrate nor the exact size of abrasive. However, this would have been an obvious design expedient dependent on degree of conditioning desired. In regard to the material of the elements and supporting substrate being the same, and the material of the abrasive elements, this would have been obvious to one of ordinary skill in the art at time invention was made to choose the same material for the elements and substrate, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

7. Claims 11,12,14,34,44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchner in view of Southwick-5,782675.

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Kirchner does not disclose a pliable supporting substrate for filaments nor wherein the motion between the conditioner and pad is linear. However, Southwick teaches conditioning a pad with a chemical and conditioner having a pliable supporting surface of filaments for conditioning a polishing pad and wherein the pad and conditioner move linear (along B-B) with respect to one another. Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to use a pliable surface to support filaments, as taught by Southwick, in order to more effectively control the conditioning process without damaging the pad. The choice of movement on conditioner and pad, such as linear, would be within the level of one of ordinary skill in the art.

8. Claims 30, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchner in view of Allman et al.-5,868,608.

Kirchner does not disclose vibrating the pad during conditioning. However, Allman teaches to condition a pad with a slurry while ultrasonically vibrating the pad. Therefore, it would have been obvious to one of ordinary skill in the art at time invention was made to apply ultrasonic energy to the pad of Kirchner, as taught by Allman, in order to increase conditioning effects while decreasing time.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Morgan whose telephone number is (703) 308-1743.



EILEEN P. MORGAN
PRIMARY EXAMINER

EM

January 12, 2004